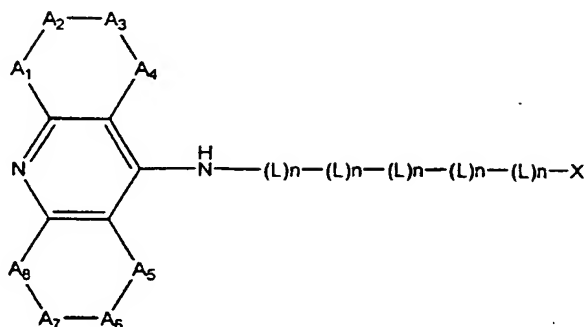


# CLAIMS

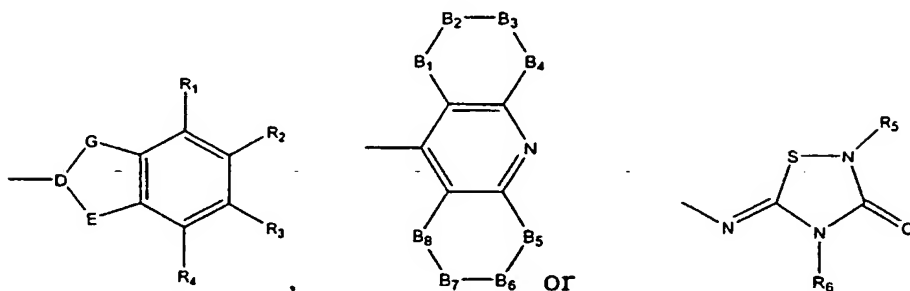
1. A compound represented by the general formula (I)



Formula I

wherein:

X is one of the following radicals:



L is independently selected from -C(R)(R')-, -CO-, -O- or -NR'-

n is zero, one, two, three, four, five, six, seven, eight, nine or ten

R and R' are independently selected from hydrogen, alkyl, aryl, heteroaryl, halo, haloalkyl, alkoxy, hydroxyl, nitro and alkylthio

D is independently selected from  $-C(R_9)-$ ,  $=C-$ , or  $-N-$

$A_1$ ,  $A_2$ ,  $A_3$ ,  $A_4$ ,  $A_5$ ,  $A_7$ ,  $A_8$ ,  $B_1$ ,  $B_2$ ,  $B_3$ ,  $B_4$ ,  $B_5$ ,  $B_6$ ,  $B_7$ ,  $B_8$ , C and G are independently selected from  $-CO-$ ,  $-C(R_{10})(R_{11})-$ ,  $=C(R_{10})-$ ,  $-N(R_{12})-$ ,  $=N-$ ,  $-O-$ ,  $-S(O)_t-$

$R_1$ ,  $R_2$ ,  $R_3$ ,  $R_4$ ,  $R_9$ ,  $R_{10}$  and  $R_{11}$  are independently selected from hydrogen, alkyl, alkoxy, hydroxyl, alkylthio, cycloalkyl, haloalkyl, halo, aryl,  $-(Z)_n-$ , aryl, heteroaryl,  $-O(R_7)-$ ,  $-C(O)R_7$ ,  $-C(O)OR_7$ ,  $-S(O)_t$ , cyano, nitro and mercapto, aryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, nitro or alkylthio; and heteroaryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, nitro or alkylthio

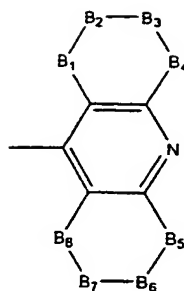
$R_5$ ,  $R_6$ , and  $R_{12}$  are independently selected from hydrogen, alkyl, alkoxy, hydroxyl, cycloalkyl, haloalkyl, aryl, heteroaryl, aryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, or alkylthio; and heteroaryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, nitro or alkylthio

Z is independently selected from  $-C(R_7)(R_8)-$ ,  $-C(O)-$ ,  $-O-$ ,  $-C(=NR_7)-$ ,  $-S(O)_t$ ,  $N(R_7)-$

$R_7$  and  $R_8$  are independently selected from hydrogen, alkyl, alkoxy, alkylthio, cycloalkyl, haloalkyl, halo, aryl, heteroaryl, cyano, nitro, mercapto, aryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, nitro or alkylthio; and heteroaryl substituted by alkyl, alkoxy, hydroxy, halo, haloalkyl, nitro or alkylthio

t is zero, one or two;

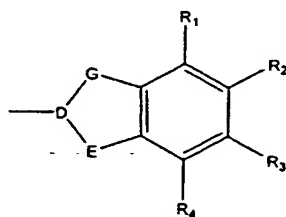
with the proviso that when X is:



then

- (a) each of the groups  $A_1$  to  $A_8$  and  $B_1$  to  $B_8$  is not  $=C(R_{10})-$ , and
- (b) each of the groups  $A_1$  to  $A_4$  and  $B_1$  to  $B_4$  is not  $=C(R_{10})-$  when each of the groups  $A_5$  to  $A_8$  and  $B_5$  to  $B_8$  is  $-C(R_{10})(R_{11})-$ .

2. A compound according to claim 1 wherein X is a group:



where D, E, G,  $R_1$ ,  $R_2$ ,  $R_3$  and  $R_4$  are as defined.

- 3. A compound according to claim 2, wherein X is selected from phthalimide (1,3-dioxo-1,3-dihydro-isoindol-2-yl), indol-2-yl, 1-indanon-2-yl, benzimidazol-2-yl, indadion-2-yl, indazol-2-yl, benzofuran-2-yl, benzothiophen-2-yl, or benzotriazol-2-yl
- 4. A compound according to claim 2 wherein X is phthalimide (1,3-dioxo-1,3-dihydro-isoindol-2-yl) and the cyclic part of formula I

represents 9-acridinyl, 1,2,3,4-tetrahydro-acridin-9-yl or 6-chloro, 1,2,3,4-tetrahydro-acridin-9-yl.

5. A compound according to claim 2 which is:

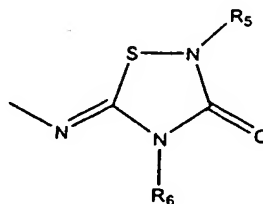
- 2-[6-(acridin-9-ylamino)-hexyl]-isoindole-1,3-dione (6),
- 2-[7-(acridin-9-ylamino)-heptyl]-isoindole-1,3-dione (7),
- 2-[8-(acridin-9-ylamino)-octyl]-isoindole-1,3-dione (8),
- 2-[9-(acridin-9-ylamino)-nonyl]-isoindole-1,3-dione (9),
- N-[7-(6-Chloro-1,2,3,4-tetrahydro-acridin-9-ylamino)-heptyl]-2-(1,3-dioxo-1,3-dihydro-isoindol-2-yl)-acetamide (10),
- N-(3-[[3-(6-Chloro-1,2,3,4-tetrahydro-acridin-9-ylamino)-propyl]-methyl-amino]-propyl)-2-(1,3-dioxo-1,3-dihydro-isoindol-2-yl)-acetamide (11),
- N-[6-(6-Chloro-1,2,3,4-tetrahydro-acridin-9-ylamino)-hexyl]-2-(1,3-dioxo-1,3-dihydro-isoindol-2-yl)-acetamide (12),
- 2-[6-(1,2,3,4-Tetrahydro-acridin-9-ylamino)-hexylamino]-indan-1,3-dione (3),
- 2-[7-(1,2,3,4-Tetrahydro-acridin-9-ylamino)-heptyl]-isoindole-1,3-dione (4), or
- 2-[8-(1,2,3,4-Tetrahydro-acridin-9-ylamino)-octyl]-isoindole-1,3-dione (5)

6. A compound according to claim 2 wherein X is 1-indanon-2-yl and the cyclic part of formula I represents 1,2,3,4-tetrahydro-acridin-9-yl

7. A compound according to claim 6 which is:

- 5,6-Dimethoxy-2-{{7-(1,2,3,4-tetrahydro-acridin-9-ylamino)-heptylamino}-methyl}-indan-1-one (1) or
  - 5,6-Dimethoxy-2-{{6-(1,2,3,4-tetrahydro-acridin-9-ylamino)-hexylamino}-methyl}-indan-1-one (2)
8. A compound according to claim 1 wherein X is selected from the group formed by: 9-acridinyl, 6-chloro,1,2,3,4-tetrahydro-acridin-9-yl and 1,2,3,4-tetrahydro-acridin-9-yl.
9. A compound according to claim 8 wherein the cyclic part of formula I represents 9-acridinyl, 6-chloro,1,2,3,4-tetrahydro-acridin-9-yl and 1,2,3,4-tetrahydro-acridin-9-yl.
10. A compound according to claim 9 which is:
- N-[2-(6-Chloro-1,2,3,4,4a,9a-hexahydro-acridin-9-ylamino)-ethyl]-N'-(6-chloro-1,2,3,4-tetrahydro-acridin-9-yl)-N-methyl-ethane-1,2-diamine (19),
  - N-Acridin-9-yl-N'-(1,2,3,4-tetrahydro-acridin-9-yl)-nonane-1,9-diamine (20)
  - N-Acridin-9-yl-N'-[2-(1,2,3,4,4a,9a-hexahydro-acridin-9-ylamino)-ethyl]-N'-methyl-ethane-1,2-diamine (21) ,
  - N-[2-(Acridin-9-ylamino)-ethyl]-N'-(6-chloro-1,2,3,4-tetrahydro-acridin-9-yl)-N-methyl-ethane-1,2-diamine (22),
  - N-Acridin-9-yl-N'-(6-chloro-1,2,3,4-tetrahydro-acridin-9-yl)-heptane-1,7-diamine (23), and
  - N-Acridin-9-yl-N'-(6-chloro-1,2,3,4-tetrahydro-acridin-9-yl)-octane-1,8-diamine (24).

11. A compound according to claim 1 wherein X is represented by a radical of the formula:



and in which the cyclic part of formula I represents 9-acridinyl, 6-chloro,1,2,3,4-tetrahydro-acridin-9-yl or 1,2,3,4-tetrahydro-aceridin-9-yl.

12. A compound according to claim 11 which is:
- 2-Ethyl-4-isopropyl-5-[7-(1,2,3,4-tetrahydro-acridin-9-ylamino)-heptyl-iminio]-[1,2,4]thiadiazolidin-3-one (13),
  - 2-Ethyl-4-isopropyl-5-[9-(1,2,3,4-tetrahydro-acridin-9-ylamino)-nonyl-iminio]-[1,2,4]thiadiazolidin-3-one (14),
  - 4-isopropyl-3-oxo-5-[9-(1,2,3,4-tetrahydro-acridin-9-ylamino)-nonyl-iminio]-[1,2,4]thiadiazolidine-2-carboxylic acid ethyl ester (15),
  - 4-Ethyl-2-propyl-5-[7-(1,2,3,4-tetrahydro-acridin-9-ylamino)-heptyl-imino]-[1,2,4]thiadiazolidin-3-one (16),
  - 4-Ethyl-2-isopropyl-5-[8-(1,2,3,4-tetrahydro-acridin-9-ylamino)-octylimino]-[1,2,4]thiadiazolidin-3-one (17), or
  - 4-Ethyl-2-isopropyl-5-[6-(1,2,3,4-tetrahydro-acridin-9-ylamino)-hexyl-imino]-[1,2,4]thiadiazolidin-3-one (18).
13. A pharmaceutical formulation containing as active ingredient a compound as defined in any of claims 1 to 12.

14. Compound according to claims 1 to 12 for use as a medicament
15. Compound according to claims 1 to 12 for use in treating cognitive disorders as senile dementia, cerebrovascular dementia, mild cognition impairment, attention deficit disorder, and/or neurodegenerative dementing disease with aberrant protein aggregations as specially Alzheimer's disease, Parkinson disease, ALS, or prion diseases, as Creutzfeldt-Jakob disease or Gerstmann-Straussler-Scheinher disease.
16. Use of a compound according to claims 1 to 12 for preparing a medicament.
17. Use of a compound according to claims 1 to 12 for the manufacture of a medicament for treating cognitive disorders as senile dementia, cerebrovascular dementia, mild cognition impairment, attention deficit disorder, and/or neurodegenerative dementing disease with aberrant protein aggregations as specially Alzheimer's disease, Parkinson disease, ALS, or prion diseases, as Creutzfeldt-Jakob disease or Gerstmann-Straussler-Scheinher disease.
18. A method of treating a cognitive disorder, which comprises administering an effective amount of a compound as defined in claim 1.